AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. (Original) A preventive and/or therapeutic agent for neutrophilic inflammatory diseases which comprises, as an active ingredient, a bicyclic heterocyclic compound represented by formula (I):

[wherein R¹ represents a hydrogen atom, halogen, cyano, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted or unsubstituted lower alkoxy, substituted or unsubstituted lower alkoxy, substituted or unsubstituted lower alkoxyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, a substituted or unsubstituted aliphatic heterocyclic group, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl);

A¹-A²-A³-A⁴ represents CR²=CR³-CR⁴=CR⁵ (wherein R², R³, R⁴, and R⁵ are the same or different and each has the same definition as R¹), N=CR³-CR⁴=CR⁵ (wherein R³, R⁴, and R⁵ have the same definitions as described above, respectively), CR²=N-CR⁴=CR⁵ (wherein R², R⁴, and R⁵ each have the same definition as described above), CR²=CR³-N=CR⁵ (wherein R², R³, and R⁵ have the same

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definitions as described above, respectively), CR²=CR³-CR⁴=N (wherein R², R³, and R⁴ have the same definitions as described above, respectively), N=CR³-N=CR⁵ (wherein R³ and R⁵ have the same definitions as described above, respectively), CR²=N-CR⁴=N (wherein R² and R⁴ have the same definitions as described above, respectively), or N=CR³-CR⁴=N (wherein R³ and R⁴ have the same definitions as described above, respectively);

Q represents substituted or unsubstituted phenylene, substituted or unsubstituted naphthylene, substituted or unsubstituted heteroarylene, or a divalent group formed by removing any one hydrogen atom from an aliphatic heterocycle of a substituted or unsubstituted aliphatic heterocyclic group;

T represents (i) formyl, (ii) substituted or unsubstituted lower alkyl, (iii) substituted or unsubstituted lower cycloalkyl, (iv) substituted or unsubstituted lower alkanoyl, (v) substituted or unsubstituted lower cycloalkylcarbonyl, (vi) substituted or unsubstituted aryl, (vii) substituted or unsubstituted aralkyl, (viii) substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), (x) substituted or unsubstituted aromatic heterocyclic carbonyl (wherein an aromatic heterocyclic moiety of the aromatic heterocyclic carbonyl is not tetrazolyl),

(xi) formula (A¹)

[wherein na represents an integer of 0 to 3, nb represents an integer of 1 to 4,

J¹ represents a single bond or carbonyl,

X-Y represents CR⁷-CH₂ (wherein R⁷ represents a hydrogen atom, halogen, nitro, hydroxy, cyano, trifluoromethyl, formyl, lower alkyl, lower alkoxy, lower alkoxycarbonyl, lower alkanoyl, lower cycloalkylcarbonyl, or lower alkoxycarbonylamino) or C=CH,

and R⁶ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted or alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl)],

(xii) -NR^{11a}R^{11b} [wherein R^{11a} and R^{11b} are the same or different and each represents a hydrogen atom, formyl, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted or unsubstituted lower alkanoyl, substituted or unsubstituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, substituted or unsubstituted aryloxycarbonyl, a substituted or unsubstituted aliphatic heterocyclic group, a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), or substituted or unsubstituted aromatic heterocyclic carbonyl (wherein an aromatic heterocyclic moiety of the aromatic heterocyclic carbonyl is not tetrazolyl), or R^{11a} and R^{11b} are combined together with the adjacent nitrogen atom thereto to form a substituted or unsubstituted heterocyclic group],

(xiii) -OR¹² [wherein R¹² represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted

lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, substituted or unsubstituted aryloxycarbonyl, a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), substituted or unsubstituted aromatic heterocyclic oxycarbonyl (wherein an aromatic heterocyclic moiety of the aromatic heterocyclic oxycarbonyl is not tetrazolyl), substituted or unsubstituted lower alkylsulfonyl, substituted or unsubstituted aromatic heterocyclic sulfonyl (wherein an aromatic heterocyclic moiety of the aromatic heterocyclic sulfonyl is not tetrazolyl), or -C(=O)NR^{13a}R^{13b} (wherein R^{13a} and R^{13b} have the same definitions as R^{11a} and R^{11b} described above, respectively)],

$$\begin{array}{c|c}
O \\
N \\
N \\
R^{15a}
\end{array}$$

$$\begin{array}{c}
(C^{1}) \\
R^{14} \\
R^{15b}
\end{array}$$

(wherein R¹⁴ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, or substituted or unsubstituted aroyl, and R^{15a} and R^{15b} have the same definitions as R^{11a} and R^{11b} described above, respectively),

(xv) formula (D¹)

(xiv) formula (C¹)

$$\begin{array}{c} O > S < O \\ N \\ R^{16} \end{array}$$

(wherein R¹⁶ has the same definition as R¹⁴ described above, and R¹⁷ represents substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted aryl, or substituted or unsubstituted aralkyl), (xvi) formula (E¹)

[wherein R¹⁸ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), and R¹⁹ has the same definition as R¹⁷ described above],

(xvii) -C(=X¹)-OR²⁰ [wherein X¹ represents an oxygen atom or a sulfur atom, and R²⁰ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted or unsubstituted aralkyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), provided that X¹ represents an oxygen atom, R²⁰ is not a hydrogen atom], (xviii) -C(=X²)-NR^{21a}R^{21b} (wherein X² has the same definition as X¹, and R^{21a} and R^{21b} have the same definitions as R^{11a} and R^{11b} described above, respectively), or

(xix) formula (B¹)

$$--E^{--}F^{--}R^{8}$$
 (B¹)

{wherein E--F represents CR9=CR10 [wherein R9 and R10 are the same or different and each represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl)] or C≡C, R⁸ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), or -C(RA1)(RA2)NRB1RB2 [wherein RA1 and RA2 are the same or different and each represents a hydrogen atom, halogen, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), R^{A1} and R^{A2} are combined together with the adjacent carbon atom thereto to form a saturated aliphatic ring, or RA1 and RA2 are combined together to represent an oxygen atom or a sulfur atom, and R^{B1} and R^{B2} have the same definitions as R^{11a} and R^{11b} described above, respectively]}] or a pharmaceutically acceptable salt thereof.

2. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 1, wherein T is formula (F¹):

$$R^{22a} R^{22b} R^{20} (F^1)$$

[wherein nd represents an integer of 0 to 3,

R^{22a} and R^{22b} are the same or different and each represents a hydrogen atom, halogen, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), R^{22a} and R^{22b} are combined together with the adjacent carbon atom thereto to form a saturated aliphatic ring, or R^{22a} and R^{22b} are combined together to represent an oxygen atom or a sulfur atom, and R²⁰ has the same definition as described above, provided that R^{22a} and R^{22b} are combined together to represent an oxygen atom, R²⁰ is not a hydrogen atom].

3. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 1, wherein T is formula (G¹):

(wherein ne represents an integer of 0 to 3,

 R^{21a} and R^{21b} have the same definition as described above, respectively, and R^{23a} and R^{23b} have the same definitions as R^{22a} and R^{22b} described above, respectively).

4. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 3, wherein R^{21a} and R^{21b} are the same or different and both or either of R^{21a} and R^{21b} is formula (H^1):

[wherein nf represents an integer of 0 to 5;

ng represents an integer of 0 to 3;

R^{24a} and R^{24b} are the same or different and each represents a hydrogen atom, formyl, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted lower alkoxycarbonyl,

substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), R^{24a} and R^{24b} are combined together with the adjacent carbon atom thereto to form a saturated aliphatic ring, or R^{24a} and R^{24b} are combined together to represent an oxygen atom or a sulfur atom;

R^{25a} and R^{25b} are the same or different and each represents a hydrogen atom, formyl, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), R^{25a} and R^{25b} are combined together with the adjacent carbon atom thereto to form a saturated aliphatic ring, R^{25a} and R^{25b} are combined together to represent an oxygen atom or a sulfur atom, or R^{25a} or R^{25b} are combined together with R^{26a} or R^{26b} and the adjacent carbon atom and nitrogen atom thereto to form a substituted or unsubstituted heterocyclic group;

and R^{26a} and R^{26b} are the same or different and each represents a hydrogen atom, formyl, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted or unsubstituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl), R^{26a} and R^{26b} are combined together with the adjacent nitrogen atom thereto to form a substituted or unsubstituted heterocyclic group, or R^{26a} or R^{26b} are combined together with R^{25a} or R^{25b} and the adjacent

nitrogen atom and carbon atom thereto to form a substituted or unsubstituted heterocyclic group].

5. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 1, wherein T is formula (B²):

$$--E^{--}F-R^{8a}(B^2)$$

[wherein E_F has the same definition as described above, and R^{8a} is formula (G²):

$$\begin{array}{c|cccc}
R^{27a} & R^{27b} \\
N & R^{28a} \\
R^{28b}
\end{array}$$
 (G²)

(wherein nh, R^{27a} , R^{27b} , R^{28a} , and R^{28b} have the same definitions as nd, R^{A1} , R^{A2} , R^{B1} , and R^{B2} described above, respectively)].

6. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 1, wherein T is formula (A²):

(wherein ni represents an integer of 0 to 2, and na, nb, X-Y, and R⁶ have the same definitions as described above, respectively).

7. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 1, wherein T is formula (E²):

(wherein nj represents an integer of 0 to 3, and R¹⁸ and R¹⁹ have the same definitions as described above, respectively).

- 8. (Currently amended) A GPR4 antagonist which comprises, as an active ingredient, the bicyclic heterocyclic compound or pharmaceutically acceptable salt thereof described in Claim 1 any of Claims 1 to 7.
- 9. (Original) A preventive and/or therapeutic agent for neutrophilic inflammatory diseases which comprises, as an active ingredient, a bicyclic heterocyclic compound represented by formula (II):

$$W^{1}$$
 Y^{1}
 X^{29}
 X^{30}
 $X^{$

 $\{$ wherein Y^1 and Y^2 are the same or different and each represents CH or a nitrogen atom;

W¹ has the same definition as T described above;

Z¹ represents a nitrogen atom or CR³³ [wherein R³³ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, or a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl)];

R²⁹ represents a hydrogen atom, halogen, amino, nitro, cyano, carboxy, lower alkoxycarbonylamino, mono- or di-lower alkylamino, lower alkylsulfonyl, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted aryl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, or a substituted or unsubstituted aliphatic heterocyclic group;

and R³⁰, R³¹, and R³² are the same or different and each represent a hydrogen atom, halogen, cyano, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted lower alkoxy, substituted or unsubstituted lower alkoxycarbonyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted aroyl, a substituted or unsubstituted aroyl, a substituted aromatic heterocyclic group (excluding tetrazolyl)) or a pharmaceutically acceptable salt thereof.

10. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (G¹):

$$R^{23a} R^{23b}$$
 $R^{21a} (G^1)$
 R^{21b}

(wherein ne, R^{21a} , R^{21b} , R^{23a} , and R^{23b} have the same definitions as described above, respectively).

11. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (G³):

$$\begin{array}{ccc}
O \\
N \\
R^{21a}
\end{array}$$
(G³)

(wherein R^{21a} and R^{21b} have the same definitions described above, respectively).

12. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 10 or 11, wherein R^{21a} and R^{21a} are the same or different and both or either of R^{21a} and R^{21a} is formula (H^1):

(wherein nf, ng, R^{24a}, R^{24b}, R^{25a}, R^{25b}, R^{26a}, and R^{26b} have the same definitions as described above, respectively).

13. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (G⁴):

$$\begin{array}{c|c}
O \\
N \\
R^{21c}
\end{array}$$
(G⁴)

(wherein R^{21c} and R^{21d} are the same or different and each represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted aryl, or substituted or unsubstituted aralkyl, or R^{21c} and R^{21d} are combined together with the adjacent nitrogen atom thereto to form a substituted or unsubstituted heterocyclic group).

14. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (F¹):

$$R^{22a} R^{22b} R^{20} (F^1)$$

(wherein nd, R^{20} , R^{22a} , and R^{22b} have the same definitions as described above, respectively).

15. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (B²):

$$--E^{--}F^{--}R^{8a}(B^2)$$

(wherein E-F and R8a have the same definitions as described above, respectively).

- 16. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is -NR¹¹¹aR¹¹¹b (wherein R¹¹¹a and R¹¹¹b have the same definitions as described above, respectively).
- 17. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is -NHR^{11a} (wherein R^{11a} has the same definition as described above).
- 18. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is -NHR^{11c} [wherein R^{11c} represents substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower cycloalkylcarbonyl, substituted or unsubstituted aroyl, or substituted or unsubstituted aromatic heterocyclic carbonyl (wherein an aromatic heterocyclic moiety of the aromatic heterocyclic carbonyl is not tetrazolyl)].
- 19. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (C¹):

$$\begin{array}{c|c}
O \\
N \\
N \\
R^{15a}
\end{array}$$

$$\begin{array}{c}
(C^{1}) \\
R^{14} \\
R^{15b}
\end{array}$$

(wherein R¹⁴, R^{15a}, and R^{15b} have the same definitions as described above, respectively).

20. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (C²):

$$\begin{array}{c|c}
O \\
\downarrow \\
N \\
H
\end{array}$$

$$\begin{array}{c}
R^{15c} \\
(C^2)
\end{array}$$

(wherein R^{15c} represents substituted or unsubstituted lower alkyl, substituted or unsubstituted lower cycloalkyl, substituted or unsubstituted aryl, or substituted or unsubstituted aralkyl).

21. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (D¹):

$$\begin{array}{c}
O \\
N
\end{array}$$

$$\begin{array}{c}
O \\
R^{17}
\end{array}$$

$$\begin{array}{c}
O \\
R^{16}
\end{array}$$

(wherein R¹⁶ and R¹⁷ have the same definitions as described above, respectively).

22. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (D²):

$$\begin{array}{c} O \\ N \end{array} S \stackrel{O}{\stackrel{}{\sim}} R^{17} (D^2)$$

(wherein R¹⁷ has the same definition as described above).

23. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (A²):

$$R^{6} \xrightarrow{N} Y Y (A^{2})$$

(wherein na, nb, ni, $X_{\underline{--}}Y$, and R^6 have the same definitions as described above, respectively).

24. (Original) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9, wherein W¹ is formula (E²):

(wherein nj, R^{18} , and R^{19} have the same definitions as described above, respectively).

- 25. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to <u>Claim 9any of Claims 9 to 24</u>, wherein R²⁹ is a hydrogen atom.
- 26. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9any of Claims 9 to 25, wherein R³⁰, R³¹, and R³² are the same or different and each represents a hydrogen atom, halogen, or substituted or unsubstituted lower alkyl.
- 27. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9 any of Claims 9 to 26, wherein Z¹ is CR³³ (wherein R³³ has the same definition as described above).
- 28. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9 any of Claims 9 to 26, wherein Z¹ is CH.
- 29. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9 any of Claims 9 to 28, wherein Y^1 and Y^2 are CH.
- 30. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9any of Claims 9 to 28, wherein Y^1 and Y^2 are a nitrogen atom.

- 31. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9any of Claims 9 to 30, wherein R³⁰, R³¹, and R³² are the same or different and each represents a hydrogen atom or substituted or unsubstituted lower alkyl.
- 32. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 9any of Claims 9 to 30, wherein R³⁰ and R³² are the same or different and each represents a hydrogen atom or substituted or unsubstituted lower alkyl, and R³¹ represents halogen.
- 33. (Currently amended) A GPR4 antagonist which comprises, as an active ingredient, the bicyclic heterocyclic compound or pharmaceutically acceptable salt thereof described in Claim 9any of Claims 9 to 32.
- 34. (Currently amended) A bicyclic heterocyclic compound represented by formula (III):

{wherein Y^3 and Y^4 have the same definitions as Y^1 and Y^2 described above, respectively;

W² is bonded at the 3-, 4-, or 5-position of a benzene ring and represents:

- (i) formyl;
- (ii) lower alkyl or lower alkyl substituted by 1 to 3 substituents which are the same or different and selected from the following substituent group A [substituent group A: halogen, hydroxy, formyl, trifluoromethyl, vinyl, styryl, phenylethynyl, lower cycloalkyl, lower alkoxy, hydroxy-substituted lower alkoxy, lower alkoxy-substituted lower alkoxy, lower alkoxy-substituted lower alkoxy, lower alkoxycarbonyl, lower alkanoyl, aryl-substituted lower alkanoyl, aryloxy, aralkyloxy, aroyl, a substituted or unsubstituted aliphatic heterocyclic group, a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl)];
 - (iii) substituted or unsubstituted lower cycloalkyl;
 - (iv) substituted or unsubstituted lower alkanoyl;
 - (v) substituted or unsubstituted lower cycloalkylcarbonyl;
 - (vi) substituted or unsubstituted aryl;
 - (vii) substituted or unsubstituted aralkyl;
 - (viii) substituted or unsubstituted aroyl;
- (ix) a substituted or unsubstituted aromatic heterocyclic group (excluding tetrazolyl);
- (x) substituted or unsubstituted aromatic heterocyclic carbonyl (wherein an aromatic heterocyclic moiety of the aromatic heterocyclic carbonyl is not tetrazolyl);
 - (xi) formula (A³):

$$\begin{array}{c|c}
& & & & & \\
& & & & & \\
& & & & & \\
R^6 & & & & & \\
& & & & & \\
R^6 & & & & & \\
\end{array}$$
(A³)

[wherein na, nb, R^6 , and $X_{--}Y$ have the same definitions as described above, respectively, and J^2 represents a single bond, carbonyl, $-CH_2$ -, or $-(CH_2)_2$ -];

(xii) -NR^{11a}R^{11b} (wherein R^{11a} and R^{11b} have the same definitions as described above, respectively);

(xiii) $-OR^{12}$ (wherein R^{12} has the same definition as described above); (xiv) formula (C^1):

$$\begin{array}{c|c}
O \\
N \\
N \\
R^{15a}
\end{array}$$

$$\begin{array}{c}
(C^{I}) \\
R^{14} \\
R^{15b}
\end{array}$$

(wherein R¹⁴, R^{15a}, and R^{15b} have the same definitions as described above, respectivelyrespevtively);

(xv) formula (D^1) :

$$\begin{array}{c|c} O & O \\ N & S & R^{17} & (D^1) \\ R^{16} & \end{array}$$

(wherein R^{16} and R^{17} have the same definitions as described above, respectively); (xvi) formula (E^2):

(wherein nj, R¹⁸, and R¹⁹ have the same definitions as described above, respectively);

(xvii) formula (F1):

$$R^{22a} R^{22b} R^{20} (F^1)$$

(wherein nd, R²⁰, R^{22a}, and R^{22b} have the same definitions as described above, respectively);

(xviii) formula (G1):

$$R^{23a} R^{23b}$$
 $R^{21a} R^{21a}$
 R^{21b}

(wherein ne, R^{21a} , R^{21b} , R^{23a} , and R^{23b} have the same definitions as described above, respectively); or

(xix) formula (B¹):

$$-E^{-}F^{-}R^{8}$$
 (B¹)

(wherein E_F and R⁸ have the same definitions as described above, respectively);

 R^{34} , R^{35} , R^{36} , R^{37} , and Z^2 have the same definitions as R^{29} , R^{30} , R^{31} , R^{32} , and Z^1 described above, respectively;

Provided that Z^2 is a nitrogen atom, R^{35} is a hydrogen atom or lower alkyl, R^{36} and R^{37} are each a hydrogen atom, lower alkyl, or an aliphatic heterocyclic group, and R^{34} is lower alkoxy or halogen-substituted lower alkoxy, W^2 is not -OR^{12a} (wherein R^{12a} represents lower alkyl, halogen-substituted lower alkyl, or lower cycloalkyl);

 Z^2 is a nitrogen atom or CH, R^{35} is a hydrogen atom, one of R^{36} and R^{37} is a hydrogen atom, the other is a hydrogen atom, lower alkyl, or aryl, and R^{34} is a hydrogen atom or amino, W^2 is neither amino nor hydroxy;

 Z^2 is a nitrogen atom, R^{35} , R^{36} , and R^{37} are each a hydrogen atom, and R^{34} is a hydrogen atom, halogen, lower alkoxy, or substituted or unsubstituted lower alkyl, W^2 is not formula (G^5):

$$\begin{array}{c|c}
O \\
N \\
R^{21e}
\end{array}$$
(G⁵)

[wherein R^{21e} an R^{21f} are the same or different and each represents lower alkyl, (substituted or unsubstituted lower cycloalkyl)-substituted lower alkyl, lower cycloalkyl, or lower alkyl-substituted lower cycloalkyl]; and

 Z^2 is CR^{33a} (wherein R^{33a} represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted lower alkanoyl, or substituted or unsubstituted aralkyl), W² is not formula (G⁶):

$$\begin{array}{c}
O \\
N \\
R^{21g}
\end{array}$$

$$(G^6)$$

[wherein R^{21g} and R^{21h} are the same or different and each represents a hydrogen atom, lower alkyl, halogen-substituted lower alkyl, lower alkoxy-substituted lower alkyl, lower cycloalkyl, lower cycloalkyl substituted by 1 to 3 substituents selected from the substituent group B described below (substituent group B: halogen, lower

alkyl, halogen-substituted lower alkyl, and lower alkoxy), aryl, aryl substituted by 1 to 3 substituents selected from the substituent group B described above, aralkyl, or aralkyl substituted by 1 to 3 substituents selected from the substituent group B described above]} or a pharmaceutically acceptable salt thereof.

35. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (B²):

$$--E^{--}F-R^{8a}(B^2)$$

(wherein E-F and R8a have the same definitions as described above, respectively).

36. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (G¹):

$$R^{23a} R^{23b}$$
 $R^{21a} (G^1)$
 R^{21b}

(wherein ne, R^{21a} , R^{21b} , R^{23a} , and R^{23b} have the same definitions as described above, respectively).

37. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (G³):

$$\begin{array}{c|c}
O \\
N \\
R^{21a}
\end{array}$$
(G³)

(wherein R^{21a} and R^{21b} have the same definitions as described above, respectively).

38. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 36-or-37, wherein R^{21a} and R^{21b} are the same or different and both or either of R^{21a} and R^{21b} is formula (H¹):

(wherein nf, ng, R^{24a}, R^{24b}, R^{25a}, R^{25b}, R^{26a}, and R^{26b} have the same definitions as described above, respectively).

39. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (G⁴):

$$\begin{array}{c|c}
O \\
N \\
R^{21c}
\end{array}$$
(G⁴)

(wherein R^{21c} and R^{21d} have the same definitions as described above, respectively).

40. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is -NR^{11a}R^{11b} (wherein R^{11a} and R^{11b} have the same definitions as described above, respectively).

- 41. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is -NHR^{11a} (wherein R^{11a} has the same definition as described above).
- 42. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is -NHR^{11c} (wherein R^{11c} has the same definition as described above).
- 43. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (C¹):

$$\begin{array}{c|c}
O \\
N \\
N \\
R^{15a}
\end{array}$$

$$\begin{array}{c}
(C^{1}) \\
R^{14} \\
R^{15b}
\end{array}$$

(wherein R^{14} , R^{15a} , and R^{15b} have the same definitions as described above, respectively).

44. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (C²):

$$\begin{array}{c|c}
O \\
N \\
H
\end{array}$$

$$\begin{array}{c}
R^{15c} \\
(C^2)
\end{array}$$

(wherein R^{15c} has the same definition as described above).

45. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is formula (D¹):

$$\begin{array}{c}
O \\
N
\end{array}$$

$$\begin{array}{c}
O \\
R^{17}
\end{array}$$

$$\begin{array}{c}
O \\
R^{17}
\end{array}$$

$$\begin{array}{c}
O \\
D^{1}
\end{array}$$

(wherein R^{16} and R^{17} have the same definitions as described above, respectively).

46. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W^2 is formula (D^2):

$$\bigvee_{N}^{O} S \stackrel{O}{\leqslant}_{R^{17} (D^2)}$$

(wherein ${\sf R}^{17}$ has the same definition as described above).

- 47. (Original) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34, wherein W² is -NHR^{11d} (wherein R^{11d} represents substituted or unsubstituted lower cycloalkylcarbonyl).
- 48. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 47, wherein R³⁴ is a hydrogen atom.
- 49. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to

48, wherein R³⁵, R³⁶, and R³⁷ are the same or different and each is a hydrogen atom, halogen, or substituted or unsubstituted lower alkyl.

- 50. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 49, wherein Z^2 is CR^{33} (wherein R^{33} has the same definition as described above).
- 51. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 49, wherein Z² is CH.
- 52. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 54, wherein Y³ and Y⁴ are CH.
- 53. (Currently amended) The bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 51, wherein Y³ and Y⁴ are a nitrogen atom.
- 54. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 34any of Claims 34 to 53, wherein R³⁵, R³⁶, and R³⁷ are the same or different and each represents a hydrogen atom or substituted or unsubstituted lower alkyl.

- 55. (Currently amended) The preventive and/or therapeutic agent for neutrophilic inflammatory diseases according to Claim 34any of Claims 34 to 53, wherein R³⁵ and R³⁷ are the same or different and each represents a hydrogen atom or substituted or unsubstituted lower alkyl, and R³⁶ represents halogen.
- 56. (Currently amended) A pharmaceutical composition which comprises, as an active ingredient, the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34 any of Claims 34 to 55.
- 57. (Currently amended) A GPR4 antagonist which comprises, as an active ingredient, the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 55.
- 58. (Currently amended) A preventive and/or therapeutic agent for neutrophilic inflammatory diseases which comprises, as an active ingredient, the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 55.
- 59. (Currently amended) A preventive and/or therapeutic agent for diseases derived from hyperfunction of GPR4 which comprises, as an active ingredient, the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 1 any of Claims 1 to 7.
- 60. (Currently amended) A preventive and/or therapeutic agent for diseases derived from hyperfunction of GPR4 which comprises, as an active

ingredient, the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 9any of Claims 9 to 32.

- 61. (Currently amended) A preventive and/or therapeutic agent for diseases derived from hyperfunction of GPR4 which comprises, as an active ingredient, the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34 any of Claims 34 to 55.
- 62. (Currently amended) A method for preventing and/or treating neutrophilic inflammatory diseases, which comprises a step of administering an effective amount of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 1 any of Claims 1 to 7.
- 63. (Currently amended) A method for preventing and/or treating diseases derived from hyperfunction of GPR4, which comprises a step of administering an effective amount of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 1 any of Claims 1 to 7.
- 64. (Currently amended) A method for preventing and/or treating neutrophilic inflammatory diseases, which comprises a step of administering an effective amount of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 9any of Claims 9 to 32.
- 65. (Currently amended) A method for preventing and/or treating diseases derived from hyperfunction of GPR4, which comprises a step of administering an

effective amount of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 9any of Claims 9 to 32.

- 66. (Currently amended) A method for preventing and/or treating neutrophilic inflammatory diseases, which comprises a step of administering an effective amount of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 55.
- 67. (Currently amended) A method for preventing and/or treating diseases derived from hyperfunction of GPR4, which comprises a step of administering an effective amount of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 55.
- 68. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 1 any of Claims 1 to 7 for the manufacture of a preventive and/or therapeutic agent for neutrophilic inflammatory diseases.
- 69. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in <u>Claim 1</u> any of <u>Claims 1 to 7</u> for the manufacture of a GPR4 antagonist.
- 70. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 1 any of Claims 1 to 7 for

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the manufacture of a preventive and/or therapeutic agent for diseases derived from hyperfunction of GPR4.

- 71. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 9any of Claims 9 to 33 for the manufacture of a preventive and/or therapeutic agent for neutrophilic inflammatory diseases.
- 72. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 9any of Claims 9 to 33 for the manufacture of a GPR4 antagonist.
- 73. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof described in Claim 9any of Claims 9 to 33 for the manufacture of a preventive and/or therapeutic agent for diseases derived from hyperfunction of GPR4.
- 74. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to <u>Claim 34any of Claims 34 to</u> 55 for the manufacture of a preventive and/or therapeutic agent for neutrophilic inflammatory diseases.
- 75. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to Claim 34any of Claims 34 to 55 for the manufacture of a GPR4 antagonist.

76. (Currently amended) Use of the bicyclic heterocyclic compound or the pharmaceutically acceptable salt thereof according to <u>Claim 34any of Claims 34 to</u> 55 for the manufacture of a preventive and/or therapeutic agent for diseases derived from hyperfunction of GPR4.